

WHAT IS CLAIMED IS:

1 1. A computer-implemented method of providing access to information stored in
2 diverse formats, the method comprising:

3 receiving from an application a semantic request having a request name that
4 semantically identifies a type of information sought by the request;

5 converting the received semantic request to a generic request having corresponding
6 request parameters;

7 transmitting the converted request to a data access system;

8 receiving data from the data access system corresponding to the converted request;

9 and

10 providing the data to the application.
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12 2. The computer-implemented method of claim 1, further comprising typecasting
13 the data received from the data access system before providing the data to the application.
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15 3. The computer-implemented method of claim 1, wherein the semantic request
16 comprises a uniform resource identifier.
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18 4. The computer-implemented method of claim 1, further comprising creating an
19 object for receiving and converting the semantic request, opening a database connection
20 corresponding to the semantic request, and requesting properties of data corresponding to the
21 semantic request, if a database connection has not previously been opened.
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23 5. The computer-implemented method of claim 4, wherein the object is a group
24 object configured to access information about groups of of entities.

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26 6. The computer-implemented method of claim 4, wherein the created object
27 requests the properties of a resource corresponding to the converted request.

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29 7. The computer-implemented method of claim 1, wherein the converted request
30 comprises parameters corresponding to, but not present in, the semantic request.

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32 8. A computer-implemented method of establishing an object for simplifying
33 data access, the method comprising:

34 identifying a generic data access command for communicating with a data access
35 system;

36 creating a semantic data access command that corresponds to the generic data access
37 command; and

38 providing a semantic object configured to receive the semantic data access command
39 from an application, and provide a corresponding generic data access command to a data
40 access system.

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42 9. The computer-implemented method of claim 8, wherein the semantic data
43 access command comprises a uniform resource identifier.

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45 10. The computer-implemented method of claim 8, wherein the semantic object is
46 configured to open a database connection corresponding to the semantic data access

command and request properties of data corresponding to the semantic data access command,
if a database connection has not previously been opened.

11. The computer-implemented method of claim 8, wherein the generic data
access command comprises parameters corresponding to, but not present in, the semantic
data access command.

12. A system for providing simplified access to data stored in diverse formats,
comprising:

a plurality of user applications configured to receive requests from, and present data
to, one or more users of the system;

a semantic object that is accessible by one or more of the user applications using a
name that semantically suggests the action to be performed by the semantic object, the
semantic object producing in response to a request from the one or more user applications, a
generic data request having one or more parameters that convey information relating to the
request; and

a repository system that receives the generic data request and responds to the
semantic object with data corresponding to the request.

13. The system of claim 12, wherein the semantic object type casts the data
corresponding to the request to the user application.

14. The system of claim 13, wherein the semantic object type casts the data
corresponding to the request before passing the data to the user application.

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72 15. The system of claim 12, further comprising a semantic object provider
73 configured to give access to prepared semantic objects in response to a request from a user
74 application.

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76 16. The system of claim 15, wherein the semantic object provider accepts
77 additional semantic objects after the system has been established.

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79 17. The system of claim 16, wherein the semantic object provider is configured to
80 access semantic objects over a remote communication link.

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82 18. The system of claim 12, further comprising a portal that provides access to the
83 user applications.

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85 19. An article comprising a machine-readable medium storing instructions
86 operable to cause one or more machines to perform operations comprising:
87 receiving from an application a semantic request having a request name that
88 semantically identifies a type of information sought by the request;
89 converting the received semantic request to a generic request having corresponding
90 request parameters;
91 transmitting the converted request to a data access system;
92 receiving data from the data access system corresponding to the converted request;
93 and
94 providing the data to the application.

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96 20. The article of claim 19, further comprising instructions operable to cause one
97 or more machines to typecast the data received from the data access system before providing
98 the data to the application.

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100 21. The article of claim 19, wherein the semantic request comprises a uniform
101 resource identifier.

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103 22. The article of claim 19, further comprising instructions operable to create an
104 object for receiving and converting the semantic request , open a database connection
105 corresponding to the semantic request, and request properties of data corresponding to the
106 semantic request, if a database connection has not previously been opened.

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108 23. The article of claim 22, wherein the object is a group object configured to
109 access information about groups of of entities.

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111 24. The article of claim 22, wherein the created object requests the properties of a
112 resource corresponding to the converted request.

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114 25. The article of claim 19, wherein the converted request comprises parameters
115 corresponding to, but not present in, the semantic request.

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